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**APPLICATION**

**FOR UNITED STATES LETTERS PATENT**

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**SPECIFICATION**

TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN THAT I, **GLENNAH D. HART**, a citizen of  
UNITED STATES OF AMERICA, have invented a new and useful  
**CARDIAC TELEMETRY PROTECTIVE POUCH** of which the  
following is a specification:

# CARDIAC TELEMETRY PROTECTIVE POUCH

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## BACKGROUND OF THE INVENTION

### Field of the Invention

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The present invention relates to protective coverings for electronic devices and more particularly pertains to a new cardiac telemetry protective pouch for providing a water resilient protective pouch for containing the telemetry electronics employed for monitoring and transmitting cardiac status information about a patient.

### Description of the Prior Art

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The use of protective coverings for electronic devices is known in the prior art. More specifically, protective coverings for electronic devices heretofore devised and utilized are known to consist basically of familiar, expected and obvious structural configurations, notwithstanding the myriad of designs encompassed by the crowded prior art which have been developed for the fulfillment of countless objectives and requirements.

Known prior art includes U.S. Patent No. 5,063,919; U.S. Patent No. 5,342,286; U.S. Patent No. Des. 360,414; U.S. Patent



No. 4,911,151; U.S. Patent No. 4,043,326; and U.S. Patent No. 2,244,871.

While these devices fulfill their respective, particular  
5 objectives and requirements, the aforementioned patents do not  
disclose a new cardiac telemetry protective pouch. The inventive  
device includes a protective pouch for receiving the telemetry  
device of the cardiac telemetry monitoring apparatus. The  
protective pouch comprises a pair of side panels each having a  
10 perimeter. A portion of the perimeter of a first one of the side  
panels is releasably coupled to a corresponding portion of the  
perimeter of a second one of the side panels to form a closable  
opening on the pouch. A remainder portion of the perimeter of the  
first side panel is inseparably coupled to the perimeter of the  
15 second side panel to define an interior and form a water tight seal  
between the side panels at the remainder portion. An interlocking  
closure is for releasably joining the side panels at the closable  
opening. The interlocking closure comprises a first interlocking  
structure on the first side panel and a second interlocking structure  
20 on the second side panel. The first interlocking structure of the  
first side panel and second interlocking structure of the second  
panel each have at least one gap therein at alignable locations of  
the closable opening such that a hole is formed between the first  
and second side panels when the first and second interlocking  
25 structures of the side panels are interlocked together for permitting  
passage of a lead wire through the interlocking closure when the  
first interlocking structure are interlocked with the second  
interlocking structure in snug relationship with the lead wire.

30 In these respects, the cardiac telemetry protective pouch  
according to the present invention substantially departs from the

conventional concepts and designs of the prior art, and in so doing provides an apparatus primarily developed for the purpose of providing a water resilient protective pouch for containing the telemetry electronics employed for monitoring and transmitting  
5 cardiac status information about a patient.

## SUMMARY OF THE INVENTION

10 In view of the foregoing disadvantages inherent in the known types of protective coverings for electronic devices now present in the prior art, the present invention provides a new cardiac telemetry protective pouch construction wherein the same can be utilized for providing a water resilient protective pouch for containing the telemetry electronics employed for monitoring and transmitting  
15 cardiac status information about a patient.

The general purpose of the present invention, which will be described subsequently in greater detail, is to provide a new cardiac telemetry protective pouch apparatus and method which has many of  
20 the advantages of the protective coverings for electronic devices mentioned heretofore and many novel features that result in a new cardiac telemetry protective pouch which is not anticipated, rendered obvious, suggested, or even implied by any of the prior art protective coverings for electronic devices, either alone or in any  
25 combination thereof.

To attain this, the present invention generally comprises a protective pouch for receiving the telemetry device of the cardiac telemetry monitoring apparatus. The protective pouch comprises a  
30 pair of side panels each having a perimeter. A portion of the perimeter of a first one of the side panels is releasably coupled to a corresponding portion of the perimeter of a second one of the side

panels to form a closable opening on the pouch. A remainder  
portion of the perimeter of the first side panel is inseparably  
coupled to the perimeter of the second side panel to define an  
interior and form a water tight seal between the side panels at the  
5 remainder portion. An interlocking closure is for releasably joining  
the side panels at the closable opening. The interlocking closure  
comprises a first interlocking structure on the first side panel and a  
second interlocking structure on the second side panel. The first  
interlocking structure of the first side panel and second  
10 interlocking structure of the second panel each have at least one  
gap therein at alignable locations of the closable opening such that  
a hole is formed between the first and second side panels when the  
first and second interlocking structures of the side panels are  
interlocked together for permitting passage of a lead wire through  
15 the interlocking closure when the first interlocking structure are  
interlocked with the second interlocking structure in snug  
relationship with the lead wire.

There has thus been outlined, rather broadly, the more  
20 important features of the invention in order that the detailed  
description thereof that follows may be better understood, and in  
order that the present contribution to the art may be better  
appreciated. There are additional features of the invention that  
will be described hereinafter and which will form the subject matter  
25 of the claims appended hereto.

In this respect, before explaining at least one embodiment of  
the invention in detail, it is to be understood that the invention is  
not limited in its application to the details of construction and to  
30 the arrangements of the components set forth in the following  
description or illustrated in the drawings. The invention is capable

of other embodiments and of being practiced and carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein are for the purpose of description and should not be regarded as limiting.

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As such, those skilled in the art will appreciate that the conception, upon which this disclosure is based, may readily be utilized as a basis for the designing of other structures, methods and systems for carrying out the several purposes of the present invention. It is important, therefore, that the claims be regarded as including such equivalent constructions insofar as they do not depart from the spirit and scope of the present invention.

Further, the purpose of the foregoing abstract is to enable the U.S. Patent and Trademark Office and the public generally, and especially the scientists, engineers and practitioners in the art who are not familiar with patent or legal terms or phraseology, to determine quickly from a cursory inspection the nature and essence of the technical disclosure of the application. The abstract is neither intended to define the invention of the application, which is measured by the claims, nor is it intended to be limiting as to the scope of the invention in any way.

It is therefore an object of the present invention to provide a new cardiac telemetry protective pouch apparatus and method which has many of the advantages of the protective coverings for electronic devices mentioned heretofore and many novel features that result in a new cardiac telemetry protective pouch which is not anticipated, rendered obvious, suggested, or even implied by any of the prior art protective coverings for electronic devices, either alone or in any combination thereof.

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It is another object of the present invention to provide a new cardiac telemetry protective pouch which may be easily and efficiently manufactured and marketed.

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It is a further object of the present invention to provide a new cardiac telemetry protective pouch which is of a durable and reliable construction.

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An even further object of the present invention is to provide a new cardiac telemetry protective pouch which is susceptible of a low cost of manufacture with regard to both materials and labor, and which accordingly is then susceptible of low prices of sale to the consuming public, thereby making such cardiac telemetry protective pouch economically available to the buying public.

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Still yet another object of the present invention is to provide a new cardiac telemetry protective pouch which provides in the apparatuses and methods of the prior art some of the advantages thereof, while simultaneously overcoming some of the disadvantages normally associated therewith.

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Still another object of the present invention is to provide a new cardiac telemetry protective pouch for providing a water resilient protective pouch for containing the telemetry electronics employed for monitoring and transmitting cardiac status information about a patient.

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Yet another object of the present invention is to provide a new cardiac telemetry protective pouch which includes a protective pouch for receiving the telemetry device of the cardiac telemetry monitoring apparatus. The protective pouch comprises a pair of

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side panels each having a perimeter. A portion of the perimeter of a first one of the side panels is releasably coupled to a corresponding portion of the perimeter of a second one of the side panels to form a closable opening on the pouch. A remainder  
5 portion of the perimeter of the first side panel is inseparably coupled to the perimeter of the second side panel to define an interior and form a water tight seal between the side panels at the remainder portion. An interlocking closure is for releasably joining the side panels at the closable opening. The interlocking closure  
10 comprises a first interlocking structure on the first side panel and a second interlocking structure on the second side panel. The first interlocking structure of the first side panel and second interlocking structure of the second panel each have at least one gap therein at alignable locations of the closable opening such that  
15 a hole is formed between the first and second side panels when the first and second interlocking structures of the side panels are interlocked together for permitting passage of a lead wire through the interlocking closure when the first interlocking structure are interlocked with the second interlocking structure in snug  
20 relationship with the lead wire.

Still yet another object of the present invention is to provide a new cardiac telemetry protective pouch that provides a substantially watertight pouch in which sensitive telemetry  
25 electronics may be held during patient activities such, for example, during patient showers.

Even still another object of the present invention is to provide a new cardiac telemetry protective pouch that provides a  
30 pouch that shields the more water sensitive portion of the telemetry equipment while leaving the less water sensitive portions exposed.



These together with other objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with particularity in the claims annexed to and  
5 forming a part of this disclosure. For a better understanding of the invention, its operating advantages and the specific objects attained by its uses, reference should be made to the accompanying drawings and descriptive matter in which there are illustrated preferred embodiments of the invention.

## 10 **BRIEF DESCRIPTION OF THE DRAWINGS**

The invention will be better understood and objects other than those set forth above will become apparent when consideration is  
15 given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

Figure 1 is a perspective view of a new cardiac telemetry protective pouch according to the present invention.

Figure 2 is a top plan view of the present invention.

Figure 3 is an enlarged perspective view of the interlocking closure of the present invention.

Figure 4 is a top view of the lead wire covers of the present invention.

## 25 **DESCRIPTION OF THE PREFERRED EMBODIMENT**

30 With reference now to the drawings, and in particular to Figures 1 through 4 thereof, a new cardiac telemetry protective pouch embodying the principles and concepts of the present

invention and generally designated by the reference numeral 10 will be described.

As best illustrated in Figures 1 through 4, the cardiac  
5 telemetry protective pouch 10 generally comprises a cardiac  
telemetry monitoring apparatus for monitoring and transmitting  
information about the cardiac status of a patient. The cardiac  
telemetry monitoring apparatus comprises a telemetry device 11, a  
housing, and a battery compartment in the housing. A plurality of  
10 lead wires 12 are removably connected to the telemetry device,  
wherein the plurality of lead wires comprises five lead wires. A  
plurality of electrodes 13 each connected to one of the plurality of  
lead wires.

15 A protective pouch 14 for receiving the telemetry device of  
the cardiac telemetry monitoring apparatus. The protective pouch  
comprises a pair of side panels each having a perimeter. A portion  
of the perimeter of a first one of the side panels 15 is releasably  
coupled to a corresponding portion of the perimeter of a second one  
20 of the side panels 16 to form a closable opening on the pouch. A  
remainder portion of the perimeter of the first side panel is  
inseparably coupled to the perimeter of the second side panel to  
define an interior 17 and form a water tight seal between the side  
panels at the remainder portion.

25 An interlocking closure 18 is for releasably joining the side  
panels at the closable opening. The interlocking closure comprises  
a first interlocking structure 19 on the first side panel and a second  
interlocking structure 20 on the second side panel. The first  
30 interlocking structure comprises a pair of protruding lips 22  
extending in a spaced parallel relationship along the portion of the

first side panel forming the closable opening. The second interlocking structure comprises at least one protruding lip 23 extending along the portion of the second side panel forming the closable opening and is releasably insertable between and  
5 interlockable with the pair of protruding lips of the first side panel. The first interlocking structure of the first side panel and second interlocking structure of the second panel each have at least one gap therein at alignable locations of the closable opening such that a hole is formed between the first and second side panels when the  
10 first and second interlocking structures of the side panels are interlocked together for permitting passage of a lead wire through the interlocking closure when the first interlocking structures are interlocked with the second interlocking structures in snug relationship with the lead wire.

15 A plurality of gaps 24 are formed in the first and second interlocking structures and adjacent gaps are separated by segments of the first and second interlocking structures. The interlocking closure comprises at least five holes in the interlocking closure for  
20 permitting at least five leads to extend out of the interior. A lip segment 26 on each of the first and second interlocking structures extends between adjacent gaps in the protruding lips of the first and second interlocking structures. One of the lip segments of the first interlocking structure is interlockable with one of the lip segments  
25 of the second interlocking structure.

A grommet 27 extends through the first and second side panels. The grommet is located on the pouch at a location spaced from the closable opening such that when the pouch is suspended  
30 from the grommet, the pouch hangs in an inverted position with the

closable opening directed downwardly to shed water away from the closable opening. The grommet comprises an aperture 28 therethrough. The grommet is substantially circular. A tether strap 29 is for supporting the pouch in a shower stall. The tether strap  
5 comprises an endless loop extending through the aperture of the grommet.

In an embodiment a plurality of lead wire covers 30 may be provided which encompass the lead wires therein and protect the  
10 lead wires from contact with water. The lead wire covers are formed such that the lead wire covers fit in the gaps formed in the first and second interlocking structures such that a water resistant seal is formed between the lead wire covers and the interlocking structures when the interlocking structures are sealed.

15 In use, a user would place the telemetry apparatus within the pouch and place the lead wire covers over the lead wires of the telemetry unit. The closable end of the pouch would then be sealed with the lead wires protruding outwardly from the pouch. The lead  
20 wires could then be placed upon a patient and the tether strap slung over the shoulder to aid in the carrying of the telemetry unit.

As to a further discussion of the manner of usage and operation of the present invention, the same should be apparent  
25 from the above description. Accordingly, no further discussion relating to the manner of usage and operation will be provided.

With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the  
30 invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed

readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

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Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable  
10 modifications and equivalents may be resorted to, falling within the scope of the invention.

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